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Dated: February 23 2009 Signature:

Docket No.: Y2238.0054

(PATENT)

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Akira Watanabe

Application No.: 10/716,622

Confirmation No.: 6336

Filed: November 20, 2003

Art Unit: 2164

For: PACKET SEARCH DEVICE, PACKET

PROCESSING SEARCH METHOD USED FOR

THE SAME, AND PROGRAM FOR THE

SAME

Examiner: H. A. Hotelling

## BRIEF IN SUPPORT OF PRE-APPEAL REQUEST FOR REVIEW

MS AF Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Madam:

Applicant respectfully request a review of the legal and factual bases for the rejections in the above-identified patent application. Pursuant to the guidelines set forth in the Official Gazette Notice of July 12, 2005, for the Pre-Appeal Brief Conference Program, favorable reconsideration of the subject application is respectfully requested.

Claims 1-17 pending in the application have been twice rejected, most recently in a Final Office Action mailed November 25, 2008. In particular claims 1-17 stand rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 6,754,662 (Li) in view of U.S. Patent Publication No. 2002/0039365 (Kalpathy). Applicants respectfully submit that rejection of these claims is improper for the reasons set forth in detail below.

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Independent claim 1 recites, inter alia, a packet search device that comprises "a first search processing means for searching predetermined conditional statements corresponding to a plurality of information areas included in header information of said packet" and "a second search processing means for searching the first search results of said first search processing means with a second search method that is different from said first search method."

It was conceded in the Final Office Action that Li does not teach these limitations. The position was taken in the Office Action that Kalpathy teaches these limitations. Applicants disagree.

## I. Kalpathy's Second Search ("Search Stage One") Does Not Search the Results of Kalpathy's First Search ("Search Stage Zero")

Kalpathy shows a cache table for pipeline processing packet searches. Kalpathy teaches that a subset of entries from a search table can be duplicated in a cache table, e.g., the "Cache... can store every 128th entry of the larger 8K Table." Kalpathy, paragraph [0022]. Kalpathy teaches that two searches are performed. Kalpathy's first search ("Search Stage Zero") is performed on the entries in the *cache*. Kalpathy's second search ("Search Stage One") searches the larger 8K Table based on the results of the first search; it does not search the results of the first search:

In the scheme illustrated in FIG. 3, the Search Stage Zero accesses the Cache and performs the first six search cycles. Based on the results of the search performed by accessing the Cache, the Search Stage One accesses the larger 8K Table [i.e., not the results of the first search] to perform the remaining seven search cycles. Id.

That is, while it is the Cache that is searched in Search Stage Zero, it is the 8K Table (not the results of Search Stage Zero) that is searched in Search Stage One.

The two search steps disclosed in Kalpathy are clearly set forth in Fig. 5. In that figure, step 510 states "Search Cache" while step 520 states "Search Table Based on Search Results of Search in Cache." The second search in Kalpathy uses the results of the first search (i.e., the search conducted at step 510), but utilizes those results to search the Table. Not only is there no teaching

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or suggestion that the results of the search conducted at step 510 are what is being searched in step 520, but Fig. 5 clearly and unambiguously shows that it is *not* the search results of step 510 that are being searched in step 520; it is the Table that is being searched.

In the Advisory Action dated January 28, 2009, the Examiner dismissed the above argument by stating, on the Continuation Sheet, that "Figure 5 was not the basis for rejecting the applicant's claims." However, Figure 5 is a flow diagram in Kalpathy that summarizes the two searches performed by Kalpathy, as discussed throughout the detailed description of Kalpathy's invention. Thus, it is clearly relevant to any interpretation of what is actually taught by Kalpathy.

## II. Kalpathy Contains no Teaching of Searching the Results of Search Stage Zero

In spite of the clear and explicit teaching in Kalpathy that the second stage search searches the 8K table, and *not* the results of the search of his first stage search, the position was taken in the Final Office Action and Advisory Action that Kalpathy in fact teaches a second search that searches the search results of the first search. In particular, the position was taken that because the second stage search in Kalpathy is *based on* the first stage search results, Kalpathy must have, at some point, "searched" those initial search results.

As discussed above, Kalpathy does not teach that any searching is done, by Kalpathy's second stage search (Search Stage One), of the search results of the first stage (Search Stage Zero). Moreover, the Examiner's surmise that *basing* the second search on the results of the first search means that a search must be done on those results is simply unsupported by Kalpathy.

Before a reference can be used as supplying a recited feature, it must contain a clear teaching of the feature in question. In this case, the term "search" is well-known by Kalpathy and is used in the same way as in the present application. Throughout the detailed description Kalpathy uses the term in describing the two search stages that have been discussed above, namely Search Stage Zero and Search Stage One, which, for the reasons discussed above, do not meet the limitations of the independent claims.

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Significantly, Kalpathy makes *no* use of the term "search" in discussing the manner in which Search Stage One is based on the results of the search of the cache (Search Stage Zero). In fact, there is no teaching in Kalpathy that would lead one of ordinary skill in the art to conclude that "basing" the second search on the results of the first search (e.g., step 520) means that some intermediate search is performed. Kalpathy contains no teaching of such a search.

In summary, the only search taught by Kalpathy that is performed after the Search Stage Zero is Search Stage One, discussed above, which is a search on the larger 8K table (in paragraph [0045] another example uses a 16K table), and *not* a search of the results of Search Stage Zero. And of course, at least because there is no such search being done, there is no teaching or remote suggestion that a different method of search is used on the search results from that used in the first search, as required in claim 1.

For at least the foregoing reasons, Kalpathy fails to disclose that the results of the first search are then searched by a different search method, as required by the independent claims. In the absence of any teaching or suggestion of this feature of the invention, claim 1 is believed to be in condition for allowance. The other independent claims recite a substantially similar limitation and are believed patentable for the same reasons.

In the event the above arguments are found to be persuasive, and only informalities remain, it is requested that the Office contact the undersigned in an attempt to correct any such informalities, rather than issue a new Office Action.

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In view of the foregoing, Applicants respectfully submit that the pending claims are allowable over the cited references, and reconsideration and withdrawal of the rejections are respectfully requested and a Notice of Allowance issued. In the event a fee is required or if any additional fee during the prosecution of this application is not paid, the Patent Office is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 50-2215.

Dated: February 23, 2009

Respectfully submitted,

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